Present Reminders of Early Commerce on the Potomac River above Washington

by

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ABOUT THE AUTHOR

Osgood Smith is a retired fishery biologist (Ph.D. Cornell 1933), formerly with the U.S. Fish and Wildlife Service. He was engaged in freshwater and marine research in California and in New England. He became an early member of the Canoe Cruisers Association in Washington, D.C. It was the challenge of poling upstream during low water that led to his interest in the still evident channel improvements made in and along the river by the Potomack Company, before the building of the C&O Canal.

COVER: The river entrance to the cut for the locks and canal around Great Falls

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The Potomac River, from Seneca, Maryland down to tidewater, near Chain Bridge in Washington, D.C. (about 16 miles), contains visible evidence of work done about 150 to 180 years ago to improve channels for commercial river traffic. This work was done before the Chesapeake and Ohio Canal was built along the river's left bank. The natural river was used to transport goods in colonial days, for the simple reason that it was easier and cheaper than using horses and wagons. A notable user of the river was the Ohio Company which promoted trade and settlement in the frontier lands west of the Allegheny Mountains. The Company, founded in 1748, used the river for 185 miles up to Will's Creek near Cumberland, Maryland, and from there followed a trail and later a road to the Monongahela River, a tributary of the Ohio. Navigation on the Potomac was not easy however, as a number of barriers necessitated portaging. The most formidable and most numerous barriers were and are between Seneca and Washington.

Projects for clearing channels in the river were promoted in the 1760's but actual construction did not start until 1784, when the recently retired General, George Washington, found time to serve as first president of the Potomac Company and to oversee much of the work. Washington resigned this position when he became President of the United States in 1789 but his interest in the work continued.

Navigation in the river upstream from Georgetown, in Washington, to Cumberland was made possible by building canals with locks around Little Falls and Great Falls and by building canals without locks, but with fairly steep chutes, around some rapids. Where the river was spread out and shallow, channels were improved by removing obstructions and by building low rock dams, wing dams, and walls to direct the low water flows. The entire project was essentially completed with the opening of the locks around Great Falls in 1802. The main river below Seneca was used for commercial traffic until 1830, the year before the Chesapeake and Ohio Canal was completed from Georgetown to Seneca. Farther upstream, river traffic was diverted into the C&O Canal via feeder canals as each section was built, finally ending at Cumberland in 1850.
The river boats were as much as 60 feet long and 7 or 8 feet wide. They were poled down river heavily laden, principally with flour, whiskey, iron, and tobacco. Lighter loads were poled and hauled upstream. Some rafts and some boats called "arks" were floated downstream then taken apart and sold for lumber. In 1811, the peak of recorded years, tolls were collected from 1,300 boats but usually collections were made from about half this number.

Part of a wall near the upper end of the Seneca Rapids bypass channel.

The remains of the canal and locks bypassing Great Falls may be seen in Great Falls Park, on the Virginia shore. There were originally three locks faced with squared stones, and two lower locks cut into the bedrock. They raised and lowered boats over an elevation of 76 feet. The lower end of the deep cut has become partially filled in with rubble and dirt so unfortunately the original depth is not obvious. It is now not deep enough to float a boat in or out of the lowest lock.
The remains of bypass channels without locks may still be seen at Stubblefield Falls, at Difficult Run Rapids and at Seneca Rapids.

The bypass along the left, or Maryland bank at Stubblefield, just below the Carderock Recreation Area, is choked with gravel at its lower end, and the upper end seems to be partially blocked, but the channel can still be used by canoes when the river is not too low. At intermediate river levels one can pole a canoe up the channel so it is not difficult to imagine that a freight boat not too heavily loaded could be towed up.

The bypass at Difficult Run Rapids was the straight chute on the right bank, or Virginia side. It is now partly choked with rocks, producing a short steep drop, but these rocks are loose, not bedrock, so they may have fallen in or have been washed in. The other barriers in these rapids are all ridges of bedrock.

One of the rings in the gorge below Great Falls, used to haul boats upstream
Navigation from Difficult Run Rapids up to the canal lock entrance below Great Falls was aided by a series of chains or ropes fastened to iron rings, hooks and posts in the cliffs along the Virginia side of the gorge. Seven rings and about a dozen hooks or posts are still intact and the position of others are indicated by broken iron posts. The remnant farthest downstream is just above the bypass chute at Difficult Run Rapids, where it must have been really needed. From there up to the canal entrance they are unevenly scattered, being some 40-50 feet apart where the current is strong and apparently absent in slack water and upstream eddies. There are also some just below and just above the lock entrance. Most of the hooks and rings are on the downstream side of projections, hence they can best be seen while paddling upstream.

Looking down the Seneca Rapids bypass channel, from near the upper end
The steep chute in the Seneca Rapids bypass, from upper end

The most interesting remains of a bypass channel are along the right bank of the rapids below Seneca. The upstream entrance starts just below the rubble dam built at the crest of the rapids to divert water into the C&O Canal. This is distinct from the channel on the Virginia bank which starts 50 yards or so upstream from the dam and which is commonly used by canoeists, though the two coincide for a short distance farther downstream. From the large flat rock marking the right side of the entrance, the bypass channel is walled on one or both sides straight down to a high walled and rather steep chute. Parts of the walls are made with large flat rocks placed on edge, like rows of leaning books. A break in the wall just above the steep chute sends most of the water out into natural channels to the left. A little below the chute another break sends the remaining water out into natural waterways but the dry canal bed can still be followed down to where it joins a wide smooth channel below the rapids.
The low wing dams and walls in the main river bed are less obvious but a number can be made out during low water. Their straightness and positions seem to rule out natural causes. The remains of a wall to the right of and near the lower end of Gladys Island above Great Falls, across from Swains Lock, still diverts much of the low water flow toward the center of the river. At Calico Rapids, between Herzog and Turkey Islands, retaining walls confine most of the flow in the lower end, though there is no sign of a channel near the crest of the rapids. Very close to the left wall at Calico there are at least two very large squared stone blocks. They would have been rather valuable to use intentionally in a rubble wall but they might have been so used after a boat or raft carrying them was wrecked or overturned. Other walls that seem man-made are in the river bed off Cabin John. A little above Cabin John Creek the clearest and straightest channel for low water boating in one place parallels a wall with a few scrub willows growing on it. Remnants of other walls still partially block side channels and help to concentrate water in the straight channel.

From a geological point of view it is somewhat surprising that so many structures, many made of loose boulders, could survive about 150 years during which there have been some destructive floods. The navigational aids are not the only persistent structures however. The remains of V-shaped weirs for fish traps, which might be much older, may be seen to the left of Herzog Island, to the left of an island above Whites Ferry, and there are several between Shepherdstown and Harpers Ferry. In fact, fish traps were one source of trouble for the Potomack Company and many suits were entered against the owners.

The relics of navigational improvements in and along the Potomac add to the interest of this scenic waterway, especially for a canoeist exploring it during relatively low river stages.

The historical information above is from Bacon-Foster, Mrs. Corra. Early Chapters in the Development of the Potomac Route to the West. Records of the Columbia Historical Society Vol. 15, pp. 96-322, Washington, D.C. 1912.